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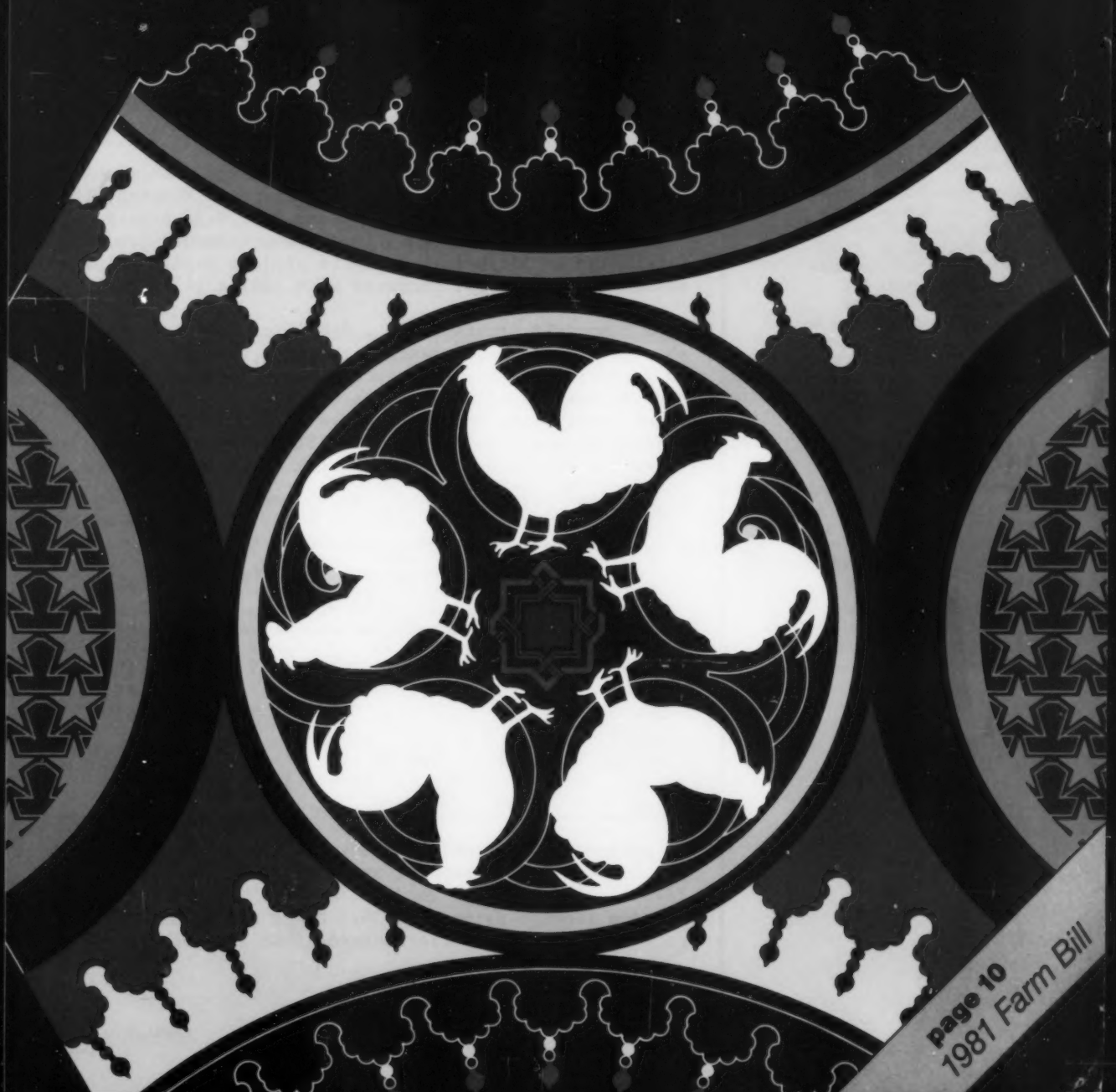
Competing for Mideast Poultry Markets



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1981 Farm Bill

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PERSPECTIVES

Export prospects have lost some glitter since last month's cover story. Figures show shipments of U.S. wheat were up 17% and soybeans up 33% from year-earlier tonnage during Oct.-Dec. 1981. But feed grains did not sell nearly as well as expected. Corn shipments fell 25%.

The corn export pace should pick up this spring, but sales to the USSR, Mexico, and Eastern Europe aren't likely to reach levels predicted earlier. Wheat shipments--heading for a record--should continue strong. The pace of soybean sales will slow as South American beans enter markets.

Total 1982 export volume is now expected to rise about 4% from last year to 169 million metric tons. However, lower prices for grains and oilseeds mean that U.S. export receipts will probably fail to set a new record for the first time in 13 years. Analysts project export value at around $42.5 billion, compared with 1981's $43.8 billion.

1982 commodity programs . . . Specific provisions for 1982 wheat, feed grains, upland cotton, and rice were announced on January 29. Acreage reductions are voluntary, but farmers must participate to be eligible for loans, target price protection, and the reserve program. To comply, planted acreage must be reduced 15% for wheat, cotton, and rice; 10% for feed grains. Acreage already planted to wheat may be cut for hay or grazed. The table below summarizes major program incentives:

	Target price	Loan level	Reserve loan level	Reserve trigger
		($/bu.)		
Wheat	4.05	3.55	4.00	4.65
Corn	2.70	2.55	2.90	3.25
Sorghum	2.60	2.42	2.75	3.10
Barley	2.60	2.08	2.37	2.65
Oats	1.50	1.31	1.49	1.65
Upland		($/lb.)		
cotton	0.71	0.5708	--	--
		($/cwt.)		
Rice	10.85	8.14	--	--

As evident in the table, farmers who place their grain in the 3-year reserve receive premiums above the basic loan levels--45¢ above for wheat, 35¢ above for corn, etc. The advance storage payment is 26.5 cents per bushel of wheat, corn, sorghum, and barley entered into the reserve.

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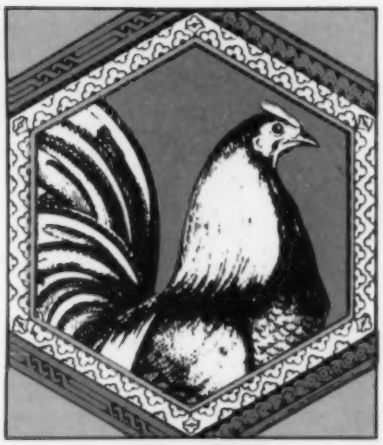
Feathers are flying in intense competition for booming Middle East poultry markets. But our competitors have been more aggressive salesmen. The world's top poultry exporter, the United States, captured only a one-fifth share of the billion-dollar-plus trade.

Can Agriculture Keep Up? *by Francis Urban* 7

Can agriculture keep up with the world's growing demand for food? Some recent trends suggest that the progress of the past can't be taken for granted. Farm production gains are slipping in many developing countries, while major food exporters face increasing strains on their resources.

Outlook for Inputs: Ample Supplies, Smaller Price Hikes *by Bill Gordon* 12

Farm production costs will continue climbing this year, but prices may not rise as much as they did last year. Analysts foresee ample supplies and somewhat smaller price increases for farm machinery, energy, fertilizer, and pesticides.



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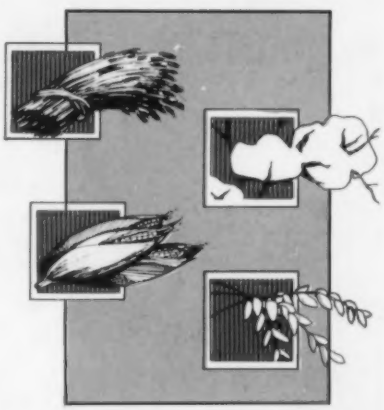


SPECIAL IN THIS ISSUE

Provisions of the 1981 Farm Bill *by Richard Rizzi, R. Thomas Fulton, Sara Short, and James Johnson* 10

Farm policy analysts summarize the major provisions of the Agriculture and Food Act of 1981. Legislative actions on wheat, feed grains, cotton, and rice are discussed this month. Other provisions will be in part two next month.

Competing for Mideast Poultry Markets

The feathers are flying in intense competition over booming Middle East poultry markets.

The United States, the world's top poultry exporter, took less than a fifth of the $1 billion poultry market in that oil-rich region last year, while European Community producers dominated with $330 million. Brazil, a fast-rising competitor, sold $200 million worth of poultry there.

According to economist John Parker of USDA's Economic Research Service, competition for Middle East poultry sales should intensify. Imports are expected to exceed 1 million metric tons this year, with a value of $1.3-$1.5 billion.

In the last 3 years, Mideast poultry meat imports more than doubled from 349,359 tons to 760,000 tons. "There's still tremendous growth to come," Parker contends. "It should continue for about a decade before their domestic output begins to slow imports."

If America's exports lagged in the Middle East, poultry producers can take solace from far better showings in some other parts of the world. Overall, an estimated 23 percent of world poultry imports came from the United States in 1981.

In the trade year ending last September, foreign customers bought 340,306 metric tons of U.S. chicken meat valued at $407 million and about 30,000 metric tons of turkey meat valued at almost $46 million.

Japan, America's top poultry customer, bought about 70,000 tons valued at $85 million in the last trade year. Around 65 percent of their imports came from the United States. China and Thailand were the other major suppliers.

U.S. Producers Face Obstacles

American producers are watching the trends in world poultry trade with in-

terest. Many producers have joined associations that coordinate export sales—especially to countries seeking large orders, according to USDA livestock economist Allen Baker.

Before the associations were formed, an individual company might not be able to supply domestic sales and fill large foreign orders. With this coordination, large orders can be filled.

However, producers are wary of expensive investments to gear up for foreign sales because of intense competition abroad.

"Without some long-term relief from the export subsidies of other countries, producers are unlikely to build specialized export plants such as those in France," Baker says. "But producers can and do use their current plants to service export accounts that want special packaging and slaughter."

Some special characteristics of foreign markets offer advantages to Americans. "Export markets provide a means of moving certain cuts," Baker says. "For example, Japan is a good customer for legs and thighs."

"Since many U.S. fast food outlets feature breast meat sandwiches, dark meat cuts are sometimes plentiful. Producers can offer a good price on these cuts to foreign buyers."

While the jump in foreign sales has been encouraging to a financially strapped industry that was losing 4.6 cents per pound of chicken produced last fall, exports are still a relatively small outlet, accommodating only around 5 percent of total U.S. production.

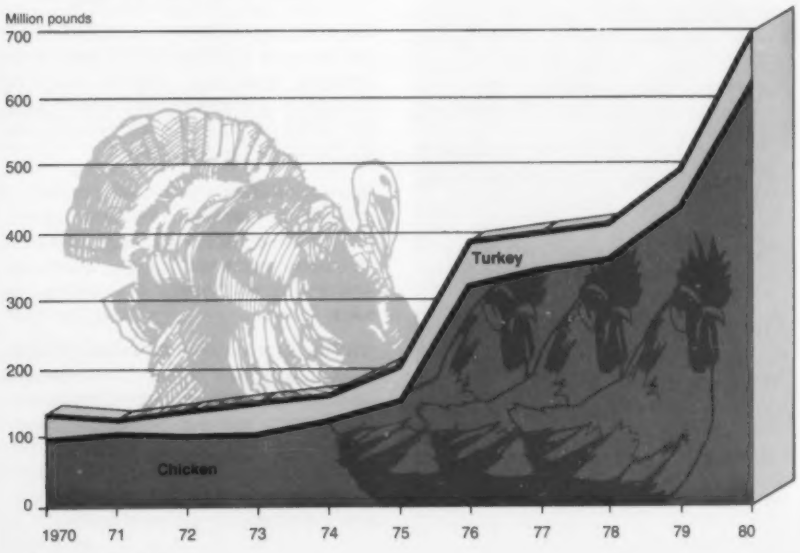
Moreover, Baker says, U.S. producers may not be convinced that the boom will last. Foreign producers have been much more aggressive in export sales. And that, Parker notes, may explain the relatively weak American showing in the Middle East.

"The French and Brazilians have built whole plants predominately for exports," he says. "They are set up for Islamic slaughter, and this gives them a major advantage in dealing with such nations as Saudi Arabia."

American producers, he observes, have undoubtedly lost sales simply because they haven't adapted to the area's cultural and religious practices. But, Parker notes, these aren't the only barriers Americans must overcome to expand their Middle East sales:

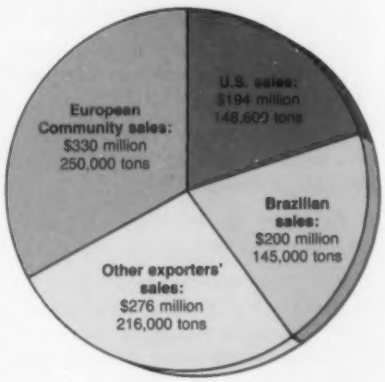
- The EC and Brazil have provided subsidies that enable their exporters to underprice Americans. The EC support equals 10 to 15 percent of the poultry export price.
- European and Brazilian exporters have groomed personal contacts and provided sales-related services, such as Arabic labeling and specified-size broilers, that are important in this region.

U.S. Poultry Meat Exports Boom[1]



[1]Exports to all markets.

. . . But U.S. Producers Sold Only a Fifth of Mideast's $1 Billion in 1981 Poultry Imports



Total: $1.0 billion or 760,000 tons in Mideast poultry imports

Note: All figures estimated.

• The rise in the value of the U.S. dollar in relation to other currencies has made American poultry less price competitive in recent months.

• European nations may also enjoy some advantage in historical trade ties with Middle East nations, even though poultry has been a significant trade item only in the last few years.

Oil Dollars Bankroll Imports

What's behind the sudden surge in Middle East poultry imports? Parker says that the flood of "oil dollars" in recent years has spurred efforts among most nations to upgrade diets.

Most area governments, he says, have pursued the political strategy introduced by Egypt of making food more plentiful for everyone—even if this means heavy subsidies to encourage imports and to keep prices modest as incomes rise.

"Regardless of who's in power politically, the known scenario is to please the people, at least in food, if you are to remain in power," Parker says.

Egypt, the second best U.S. poultry customer after Japan, bought almost $59 million of U.S. chicken meat and $7.6 million of American turkey last year.

Poultry provides a popular means of increasing per capita meat consumption:

• Poultry is cheaper than beef or mutton, and pork is forbidden in some countries.

• Shipping, storage, and distribution are easier for chicken and turkeys than for bulkier meats.

• Fast-food outlets featuring chicken have become very popular.

• If chicken has become a common menu item, Parker says that turkey parts are fashionable at gourmet events such as banquets and major social functions.

The Middle East should become a bigger buyer than all the Far East, including Japan.

While demand for poultry is growing throughout the Middle East, countries are responding differently to meet these needs. Some nations, such as Saudi Arabia, are building their own broiler facilities which operate in cooler months. However, they must continue to import feed grain for these birds.

Egypt has found it cheaper to buy poultry through low-interest, long-term U.S. trade provisions than to import grain to support its own industry. Instead, Parker says, Egypt has geared up to increase imports. A major limitation to increasing Egyptian imports is a shortage of cold storage.

Plenty of Growth Potential

Even with the massive poultry imports of the past few years, Parker sees no market saturation.

"We haven't even begun to tap the rural population in the Middle East," he declares, "and that's half the population. Frozen poultry is available in urban areas, but not usually out in the countryside."

In coming years, Parker says, the Middle East should become a bigger buyer than all the Far East, including Japan. In the latter markets, domestic production is increasing, so imports could begin tailing off.

While domestic poultry output in the Middle East will doubtlessly increase, too, Parker sees obstacles which may slow efforts toward self-sufficiency.

Feed grain supplies remain one of the greatest drawbacks. The region cannot produce nearly enough to support a large poultry industry. This means that much of the feed must be imported.

Even with government subsidies covering as much as 75 percent of feed costs, physical problems impede supplies: Shallow or congested Middle East ports, for example, create bottlenecks for deeper-drawing grain ships.

Although Parker agrees that Middle East production may someday slow imports, he suggests that American producers won't be caught by surprise. "It will happen slowly with plenty of warning," he says. □

[Based on special material provided by ERS economists John B. Parker and Allen J. Baker.]

Chicken Wars

Competition among Mideast poultry importers is sometimes more heated than among exporting countries—especially when two ancient enemies are after the same birds.

Iraqi state trade purchasers went on buying sprees around the world to build food supplies in 1976 and again in 1980, which disrupted Iranian supplies prior to an outbreak of war, according to USDA analyst John Parker.

Iraq raised the bid and took poultry in Brazil in 1980 which may have otherwise gone to Iran. At about the same time—shortly before it attacked—Iraq bought 1 million tons of grain from Argentina which otherwise could have gone to Iran.

Iraq's superior stockpile of food may have provided an important advantage in the first months of the war, Parker notes. Iran, however, has succeeded in importing large amounts of food in recent months.

Can Agriculture Keep Up?

Can agriculture keep up with the world's growing demand for food in the years ahead? Some disquieting trends of the 1970's suggest that continued progress cannot be taken for granted.

Impressive gains in food availability brought a higher standard of living to most of the world's population during the last three decades. These gains came as agriculture responded to rising consumer incomes with rapid increases in food production and a substantial expansion in farm trade.

In the 1950's and 1960's strong economic growth worldwide generated increases in per capita incomes well above those of the two previous decades. Increases averaged about 3 percent a year, even after discounting the effects of inflation.

Populations were also expanding rapidly—about 2 percent annually—somewhat dampening improvements in living standards. But more people and more money together stimulated a rise in demand for agricultural products that averaged 2.7 percent a year overall and close to 3 percent in developing countries. On a per capita basis, food consumption increased about 1 percent a year from 1950 to 1970.

Growing affluence permitted industrialized and high-growth developing countries to shift their demand from basic staples, such as grains, roots, tubers, and pulses, toward livestock and poultry products. Demand for meat, milk, and eggs, as well as the feedstuffs needed to produce them, grew twice as fast as demand for the more traditional food grains.

To meet the rising demand, agricultural production in the last 30 years grew at an impressive annual rate of 2.5 percent, about double the average pace of the first half of the century. The gains were broadly distributed, ranging from 2 percent annually in the developed countries to 3.1 percent in the Soviet Union and East Asia.

While the area under cultivation expanded steadily during the period, four-fifths of the production increase came from fast-rising yields. Rapid gains in productivity helped keep food price increases below the inflation rate, stimulating consumption without discouraging production.

Yields responded to better farming practices, including greater use of fertilizers and pesticides, and scientific breakthroughs leading to higher yielding plants, livestock, and poultry.

Shadows on the Scene

Yield advances were particularly vivid in the 1950's and 1960's, but then shadows began to appear on the scene. Grain yields, for instance, increased nearly 3 percent annually in the 1950's, then gradually retreated to 1.9 percent in the 1970's.

The world agricultural production growth rate dropped from 3.3 percent per year in the 1950-60 period to 2.1 percent in 1970-80. The sharpest downturns occurred in the Soviet Union, Japan, and Africa, more than offsetting a doubling of the growth rate in the U.S. and Canada, some improvement in much of Asia, and steady output from Central and South America.

On a per capita basis, the slippage was even more dramatic because of the combined effects of smaller productivity gains and continued high rates of population growth.

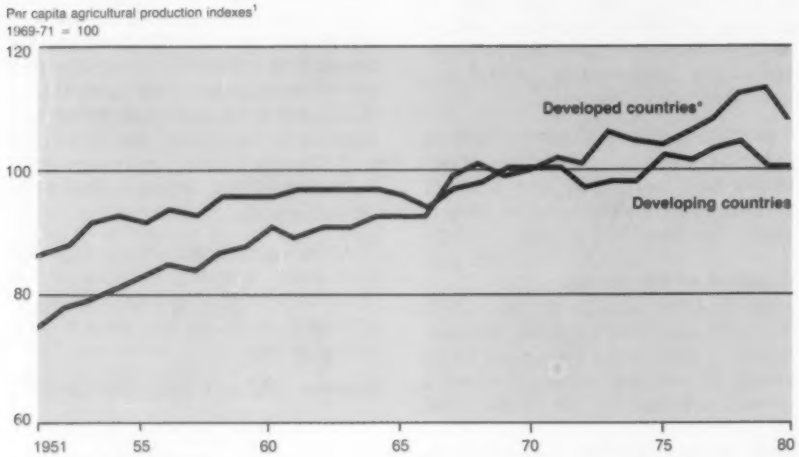
Between 1950 and 1980, world popula-

Growth in World Agricultural Output Slows—Per Capita Output Still Rising, But Barely

	Total Output			Per Capita Output		
	1951-60	1960-70	1970-80	1951-60	1960-70	1970-80
	Average annual percent change					
World	3.3	2.6	2.1	1.3	0.6	0.3
Developed Countries	2.5	1.9	1.8	1.3	.8	1.0
U.S. and Canada	1.0	1.8	2.0	.1	.3	1.1
Western Europe	2.7	2.3	1.9	1.8	1.5	1.4
Japan	3.9	.9	.1	2.8	- .8	-1.0
Oceania	3.9	3.2	1.4	1.0	1.3	0
Rep. of South Africa	3.4	3.4	2.5	.8	.7	- .1
East Europe and USSR	4.4	2.9	2.1	2.9	1.8	1.3
Eastern Europe	3.0	2.1	2.3	2.0	1.4	1.6
USSR	5.2	3.4	1.7	3.4	2.0	.9
Developing Countries[1]	3.2	2.8	2.6	1.0	.4	.1
Latin America	3.5	3.0	3.4	.8	.8	.8
Africa[2]	2.5	2.7	1.1	.3	- .1	-1.6
West Asia	3.4	2.9	3.8	.6	0	1.1
South Asia	3.0	2.7	2.0	1.2	0	- .2
East Asia, Pacific[3]	3.6	3.6	3.8	1.3	1.1	1.8
China	—	3.0	3.3	—	1.1	1.8

[1]Excludes China. [2]Excludes Republic of South Africa. [3]Excludes Japan.

Continued Growth in Developed Countries, Stagnant Pattern Elsewhere



*Includes USSR and Eastern Europe.

[1]Indexes compare rates of growth in per capita production, not actual per capita production levels which are considerably lower in developing countries.

tion climbed from 2.5 billion to 4.5 billion. Although population growth slowed from an average increase of 2 percent a year in the first two decades to about 1.7 percent in recent years, the slowdown was not enough to compensate for diminishing yield gains.

Also, population pressures have been greatest in developing countries where farm productivity is often very low. Population growth rates average only about 0.6 percent a year in developed countries and 0.8 percent in Eastern Europe and the USSR, compared with 2.1 percent in developing countries.

Annual increases in per capita food output worldwide dropped from 1.3 percent per year in 1950-60 to a poor 0.3 percent between 1970 and 1980. The developed countries in North America, Western Europe, and elsewhere bucked the decline with per capita food production gains close to 1 percent per year.

West Asia and the Far East improved too, as did China. In Central and South America, the rate was a remarkably steady 0.8-percent annual gain throughout the period.

However, the rate in Eastern Europe and the Soviet Union dropped from 2.9 percent in the 1951-60 years to 1.3 percent in 1970-80. And of even greater concern is the fact that one-third of the world's population lives in the areas where per capita agricultural production is actually declining. In this group are Japan, South Asia, South Africa, and Subsahara Africa.

The decline in Japan started 20 years ago because of a rapid withdrawal of agricultural land for urban uses. In South Asia, population increases in the mid-1960's outstripped the combined benefits of cropland expansion and yield increases. The same was true for South Africa, though the problem there is more recent.

Hardest hit was Subsahara Africa, including all Sahel and most West African nations, including Malawi, Mozambique, Somalia, and Uganda. In this region, per capita food production actually fell from an already poor 0.3-percent increase per year in the 1950's to a disastrous minus 1.6 percent in the 1970's.

Why the Slowdown?

Why this slowdown in agricultural production gains? There are a number of reasons. One is a 40-percent decline in inflation-adjusted agricultural prices between 1950 and 1980. Favorable growing conditions in the 1950's and 1960's, productivity improvements that reduced real per-unit production costs, and large grain stocks from the 1960's until 1972 all helped hold farm prices below general inflation rates.

At the same time, water and energy prices soared, sharply increasing production costs and leaving producers with fewer funds to invest to expand output. Another reason: The slowdown in technological innovations led to a decline in yield increases.

Although more land came into use, much of it made only minor contributions to total output because of its low productivity. For example, less than 20 percent of the land under cultivation in the 1960's was semi-arid. Now it's closer to 30 percent. And the long period of generally good weather ended in the 1970's, reducing average annual yields.

The unequal patterns of supply and demand among countries and regions made agricultural trade increasingly important. It grew at an average rate of over 5 percent per year in 1950-80.

In the case of grains, the most important trade item, world shipments increased 3.2 percent per year in the 1960's and 7.2 percent annually in the next decade. Even more dramatic were the trade increases of 14 percent annually for soybeans and 9 percent for oilcake and meal in the past 20 years, reflecting a

strong demand for livestock feed supporting the improving living standards.

Trading patterns have changed, too. Before World War II, Western Europe was the only significant importer of agricultural commodities, with 20 percent coming from North America. Latin America was the largest exporter, followed by North America, Eastern Europe, and Oceania. Asia, Africa, and the Soviet Union contributed smaller shares.

By 1950, North America had become the chief exporter, supplying 85 percent of the world net grain trade. By the mid-1970's, the former exporting regions of Latin America, Eastern Europe, Africa, and Asia were large importers. Today, six countries—the United States, Canada, Argentina, Australia, South Africa, and Thailand—supply over 99 percent of world net grain trade.

U.S. farm product exports grew from $2.9 billion in 1950 to $41.3 billion in 1980 and account for nearly 20 percent of the total value of world agricultural trade.

Three decades ago, industrialized nations took 65 percent of U.S. exports, while 33 percent went to developing countries, and only 2 percent to Eastern Europe and the USSR. By 1980, the shares had changed to 50 percent for developed areas, no substantial change for developing countries, and a rise to 14 percent for Eastern Europe and the USSR.

U.S. farmers are producing more and more for the world, making themselves increasingly dependent on the state of foreign economies and shifting political considerations. Foreign importers are likewise more dependent on U.S. production and American policies.

No More Huge Reserves

Not only does a larger portion of the world's agricultural trade come from fewer countries than 20 or 30 years ago, but the large grain surpluses of the past are gone.

The rapid growth in foreign demand has led to a hasty expansion of marginal land and increased soil erosion.

World grain stocks, which represent essential food security reserves, declined from 24 percent of yearly use in 1960 to about 13 percent in 1980 and 12 percent in 1981. Even with this year's substantial world stock buildup, the figure is expected to rise to only 14 percent.

The disappearance of huge world reserves can mostly be traced back to the United States. U.S. grain stocks this year are large enough to depress farm prices, but they're much smaller than the stocks we carried in the early 1960's. And the contrast is even sharper when our year-ending stocks are measured against our production—only 23 percent of production in 1981 and a projected 29 percent this year, compared with 80-90 percent 20 years ago.

No other dependable source of standing supplies has appeared, which means the poor and developing countries must compete with the more well-to-do nations for products. They are economically ill prepared to do this.

The world's growing appetite for food can't be satisfied by simply bringing additional land into production. Although only about 11 percent of the world's total land area is in crops, these 3.5 billion acres are the best half of all potentially arable land.

Much of the rest is marginal and would require large investments to achieve only low and less stable yields.

In the United States and other major food exporting countries, the rapid growth in foreign demand for grain and oilseeds led to the hasty expansion of marginal land. Such exploitation means more soil erosion, already a serious problem in many areas.

Many producers have abandoned contour plowing, cultivate hillier land, and have phased out crop rotation patterns to continually plant high-demand cash crops, such as corn and soybeans.

Land expansion also leads to greater use of declining water sources. A harsh example of this is the gradual depletion of the Ogallala Aquifer in the western United States, forcing a shift from irrigated to dryland cotton production with lower yields. Similar water depletion problems exist in North Africa, Australia, the USSR, and China.

Increased reliance on marginal lands, declining agricultural water supplies, and less beneficial weather patterns mean increased variability in yields and more frequent regional food shortages.

Caught in the middle will be the developing nations, unable to raise enough food and forced to compete for imports with limited funds. Food aid programs will need to become more efficient to adequately match declining supplies and increasing demands.

If export demand grows as currently expected, U.S. agriculture will operate closer to its productive capacity than at any other time since World War II. This will also be true of other heavy exporters, including Argentina, Australia, Canada, and South Africa. All are expected to face a growing problem of soil degradation and scarcity of water for agriculture.

Indeed, in the 1980's and beyond, the major food exporters will have to devote a much larger share of their resources to the protection of their agricultural lands than in the past. That is probably the only option if they are to maintain their own standard of living and, at the same time, help other countries meet their growing food requirements. □

[Written by ERS economist Francis Urban.]

Provisions of the 1981 Farm Bill

A year-long effort by Congress and the Administration finally produced a new farm bill in late December.

The bill continues the trend toward removing production restrictions while recognizing the need for price support and other program tools which reflect market conditions.

Here are some of the major commodity provisions of the Agriculture and Food Act of 1981. The April *FARMLINE* will outline legislative actions taken for dairy, soybeans, peanuts, sugar as well as the grain reserve, exports, food stamps, and the family farm.

Wheat and Feed Grains

Target prices for the 1982-85 wheat crops were set at not less than $4.05 for 1982, $4.30 for 1983, $4.45 for 1984, and $4.65 per bushel for 1985. Target prices for 1982-85 corn will be at least $2.70, $2.86, $3.03, and $3.18 per bushel, respectively. The Secretary may establish higher levels for both based on changes in production costs.

Target prices for grain sorghum, oats, and, if designated, barley will be fair and reasonable in relation to rates for corn.

Deficiency payments will be made to wheat and feed grain producers if the national weighted average market price they receive during the first 5 months of the marketing year is below the established target price. The payment rate will be the difference between the target price and the higher of the national weighted average market price or the loan level.

Nonrecourse loans and purchases will continue to be avalable, with the minimum level for 1982-85 at $3.55 per bushel for wheat and $2.55 for corn.

If the average market price falls below 105 percent of the loan level, the Secretary may reduce the loan and purchase levels for the next marketing year, but by no more than 10 percent and no lower than $3 for wheat and $2 for corn. Target price payments for the affected crop will then be increased to provide the same total return to producers as if no action on the loan and purchase rate had been taken. If there are no target price payments, then separate payments must be made without limitations.

Loans will be available for 1982-85 grain sorghum, barley, oats, and rye at fair and reasonable levels in relation to their feeding value to corn.

The national program acreage (NPA) for wheat and feed grains is the harvested area required to meet estimated domestic and export needs plus any desired increase or decrease in stocks. The NPA must be announced by August 15 of the preceding calendar year for wheat and November 15 for feed grains. The NPA is not required when a reduced acreage program is in effect.

If federal crop insurance is available, producers won't be eligible for disaster payments unless the Secretary determines that all the following conditions are met:

- Drought, flood, or other natural disaster prevents them from planting wheat, feed grains, or another nonconserving crop, or such conditions reduce yields and create an economic emergency for the farmer.
- Federal crop insurance indemnity payments and other government assistance are insufficient to alleviate such economic emergency, or technical problems with the federal crop insurance program prevent proper coverage.
- And additional assistance is needed to alleviate the economic emergency.

The 1981 act modifies the Secretary's authority to reduce the acreage planted to wheat and feed grains. The announcement for either an acreage limitation or set-aside program must be made by August 15 for wheat and November 15 for feed grains.

The acreage limitation program will be determined by applying a uniform percentage reduction to the wheat and feed grain acreage base for each farm. This base will be either: the acreage planted for harvest (including acreage producers were prevented from planting because of conditions beyond their control) in the previous crop year; or, at the option of the Secretary, the average acreage planted for harvest in the 2 previous years.

If a set-aside program is announced, producers must devote to conservation purposes acreage equal to a specified percentage of the current year's acreage planted for harvest. Wheat and feed grain acreage may be limited under a set-aside program. If either the set-aside or acreage limitation program is in effect, producers must participate to be eligible for loans, purchases, and payments.

The Secretary may also offer producers a paid land-diversion program. The diverted land would be devoted to approved conservation practices. Payments to producers will depend on their diversion contracts.

Under the 1981 act, the normal crop acreage (NCA) concept doesn't apply when a reduced acreage program is in effect, but the Secretary may impose the NCA with a set-aside program.

Program cross-compliance for any commodity may be required to be eligible for

For a more detailed discussion of the new farm bill, send for a copy of the USDA staff report, ***Provisions of the Agriculture and Food Act of 1981.*** *Write to: Farmline Report, ERS Policy Branch, Room 120 GHI Bldg., USDA, Washington, D.C. 20250. Supplies are limited.*

Target Prices and Loan Rates for Wheat, Corn, Cotton, and Rice

	Target prices	Loan rates
Wheat		
1981	$3.81/bu.	$3.20/bu.
1982	$4.05/bu.[1]	$3.55/bu.[2]
1983	$4.30/bu.[1]	$3.55/bu.[2]
1984	$4.45/bu.[1]	$3.55/bu.[2]
1985	$4.65/bu.[1]	$3.55/bu.[2]
Corn		
1981	$2.40/bu.	$2.40/bu.
1982	$2.70/bu.[1]	$2.55/bu.[2]
1983	$2.86/bu.[1]	$2.55/bu.[2]
1984	$3.03/bu.[1]	$2.55/bu.[2]
1985	$3.18/bu.[1]	$2.55/bu.[2]
Upland Cotton		
1981	$0.7087/lb.	$0.5246/lb.
1982	$0.71/lb.[3]	$0.55/lb.[4]
1983	$0.76/lb.[3]	$0.55/lb.[4]
1984	$0.81/lb.[3]	$0.55/lb.[4]
1985	$0.86/lb.[3]	$0.55/lb.[4]
Rice		
1981	$10.68/cwt.	$8.01/cwt.
1982	$10.85/cwt.[1]	$8.00/cwt.[5]
1983	$11.40/cwt.[1]	$8.00/cwt.[5]
1984	$11.90/cwt.[1]	$8.00/cwt.[5]
1985	$12.40/cwt.[1]	$8.00/cwt.[5]

Note: 1981 target prices and loan rates are actual levels; 1982-85 target prices and loan rates are minimum levels set by the new farm bill.

[1]May be increased by the Secretary based on changes in the cost of production. [2]May be increased by the Secretary. If the annual average market price is less than 105% of the loan level for the year, the Secretary may, for the following year, reduce the loan level, but by no more than 10%. The loan level cannot go below $3/bu. for wheat and $2/bu. for corn. [3]The actual target price will be the higher of the minimum level plus (at the discretion of the Secretary) any adjustment for changes in cost of production, or 120% of the loan level. [4]Must be adjusted according to specified market price averages. [5]Must be adjusted by the same percentage increase as that used for adjusting the target price.

loans, purchases, or payments under a wheat or feed grain set-aside, but not under a reduced acreage program.

Cotton

The target price for upland cotton cannot be less than 71 cents per pound for the 1982 crop, or any less than 76 cents, 81 cents, and 86 cents for 1983-85, respectively.

However, the actual target prices will be the higher of the minimum levels plus any adjustment for changes in production costs, or 120 percent of the loan level. Deficiency payments will be determined the same way as for wheat and feed grains, except that the target price will be compared to the average price for the calendar year in which the crop is produced to determine the payment rate, if any.

Nonrecourse price support loans for upland cotton will be set at the lower of either: 85 percent of the weighted average spot market price for SLM 1 1/16 inch upland cotton at average U.S. location for 3 of the previous 5 years, dropping the highest and lowest years; or 90 percent of the average adjusted Northern Europe quotation for middling 1 3/32 inch cotton during the 15-week period beginning July 1 of the year in which the loan rate is announced. But at no time will the loan level be less than 55 cents per pound.

If the Northern Europe calculation is less than the U.S. spot market calculation, the loan rate may rise to the level indicated by the spot market average. The loan level will be announced by November 1 and cannot thereafter be changed.

The NPA, not under 10 million acres, for upland cotton will be determined the same way as for grains and announced by November 1. The Secretary can use the acreage limitation and/or land diversion programs, but cannot establish set-aside provisions, nor can he use the NCA and cross-compliance provisions available for grains.

The loan level for extra-long staple cotton will be between 175 and 225 percent of the loan level for SLM 1 1/16 inch if marketing quotas have been approved, and 150 percent without them. The provisions relating to price support payments have been deleted.

Beginning with 1982 upland cotton, the loan program requires that quality differences (premiums and discounts for grade, staple, and micronaire) be established by giving equal weight to loan differences for the preceding crop and market differences for such crop in the nine U.S. spot markets. The Secretary is required to appoint a committee to study loan differentials for the 1982 crop and may revise the procedures for determining loan differentials after reviewing the committee's recommendations.

Rice

The 1981 act repeals the previously used rice allotment and marketing quota systems. This means that all rice producers, not just those holding allotments, can choose to participate in the program and be eligible for benefits.

The target price for rice cannot be less than $10.85 per cwt. for 1982's crop; $11.40 for 1983; $11.90 for 1984; and $12.40 for 1985. Target prices may be adjusted to reflect changes in production costs. Deficiency payments will be determined the same way as for grains.

The loan and purchase levels for the 1982-85 crops will be announced by March 1 and tied to target prices. For example, if the target price increases by 5 percent from one year to the next, then the loan rate would rise 5 percent. The rice loan can be decreased to not less than $8 per cwt. if the formula rate discourages exports and expands domestic stocks.

The NPA for rice is determined the same way as for grains and must be announced by January 31. There is an acreage limitation program but no set-aside, no NCA, and no cross-compliance provisions. The announcement of an acreage limitation must also be made by January 31. □

[*Written by ERS economists Richard Rizzi, R. Thomas Fulton, Sara Short, and James Johnson.*]

Outlook for Inputs: Ample Supplies, Smaller Price Hikes

Few experts would paint a rosy picture of the farm economy. Commodity prices have slumped and already high production costs are expected to climb another 6 to 9 percent this year.

But production costs rise every year, and the forecast does suggest there may be some improvement from last year's 9-percent increase. USDA and industry analysts expect ample supplies and somewhat smaller price increases for farm machinery, energy, fertilizer, and pesticides.

There's also a chance that cash receipts will get a boost later this year if smaller harvests of major crops help raise farm prices.

Improved cash receipts could allow the farmer who has been putting off capital expenditures to replace the old tractor or combine in 1982. According to Carl Vosloh, an economist with USDA's Economic Research Service, replacements rather than expansion will account for most farm machinery sales this year.

"Farm income has a great impact on sales," says Vosloh. "Since net farm income is expected to drop again in 1982, most sales will be to farmers with a definite need for replacement equipment."

Farmers who've waited till this year to buy machinery will pay more, but the price hike won't be as bad as it has been in some years. Vosloh expects an 8-percent rise in farm machinery costs in 1982, smaller than last year's 12-percent jump.

Even though farm income will be down this year, the smaller price rise together with lower interest rates should provide the "added incentive" for some recovery in equipment sales after the slump in 1980 and 1981, according to Vosloh. He looks for an increase of 3 to 4 percent in 1982 tractor sales.

"Growth in machinery sales in the 1980's will not equal that of the 1970's," he says. Since 1979, sales of tractors over 40 horsepower and self-propelled combines have dropped to the low levels of 1970-71—tractor sales off more than 25 percent from 1979 and combine sales 17 percent (though combine sales were higher in 1981 than in 1980).

High interest rates may actually be holding down increases in energy costs.

Increased machine size is partly responsible for slack demand. In 1971, the average horsepower of tractors sold was 72—in 1981, it was 114. Self-propelled combines sold in 1981 were about 40 percent larger than the average machine sold in 1971. Fewer machines are required to do the "job".

But there are other factors, too, that will affect equipment sales in the 1980's:

- With production growth now generally coming from increased yields, equipment needs are expanding less than in previous times when greater acreage called for more machinery.
- Minimum and no-till farming (growing from 15 percent of all acreage in 1972 to 47 percent in 1981) reduces equipment use.

Combine sales are the exception to the rule here. They're not hurt by reduced tillage practices and are helped by increased yields. Combine sales in 1981 were up more than 4 percent from 1980, and this growth rate is expected to continue through the mid-1980's.

Leasing is another factor that should be considered when looking at farm machinery use in the next few years, according to Vosloh. "The Economic Recovery Program of 1981 cut financing costs for lessors and allowed them to reduce leasing fees for farmers," he says.

Those lower fees are spurring more farmers to consider leasing, already an attractive alternative to buying because of high interest rates and lower income, and because leasing requires less capital.

What About Energy

Energy prices are the trickiest to project, according to ERS economist John Duncan. Even rough estimates are difficult, he says, because of the recent history of supply disruptions, caused by social and political upheavals in many of the producing nations, and the continuing effect of oil cartels on market prices and supplies.

While there is a relative glut on the market now, "anything could change that, and quite rapidly," Duncan says. "For that reason, we should keep in mind that energy price projections are tentative at best. In these times of resource scarcity and market manipulation, supplies to the marketplace and the ultimate pricing of the product can vary widely."

Farmers won't have to spend much more for energy this year, according to Earle Gavett, acting director of USDA's Office of Energy. That's assuming there won't be any major breaks in what are now plentiful petroleum supplies, and that OPEC price increases will be relatively small.

OPEC has frozen its prices for crude oil exports through 1982 at $34 a barrel, which translates into an average increase from 1981 of 2 cents a gallon in the price of all fuels for farmers, according to Gavett.

Energy costs this year will account for about the same percentage of total farm production spending as in 1981.

High interest rates, which otherwise hurt farm income as much as any other economic factor, may actually be holding down increases in energy costs. It's costing energy producers about 1.5 cents per month per gallon to store petroleum, so they're putting more of their inventories on the market, helping to dampen price increases.

Reduced world demand in 1981 because of conservation, high prices, and weak national economies is having the same effect. U.S. farmers consumed an estimated 2 quadrillion BTU's of energy in 1981—about the same level as in 1980.

Agricultural use of energy could even decline slightly in 1982, according to Gavett, mainly due to the growing practice of minimum tillage farming and the rapidly increasing use of efficient diesel-powered farm machinery, which averages about 25 percent more acres per gallon than gasoline-powered equipment.

Diesel fuel is now the principal power fuel in farming, with most new machinery diesel-powered. That should increase the demand for diesel fuel this year. According to the Department of Energy's *Short Term Energy Outlook,* the prices farmers pay are projected to be about 6 percent above 1981 prices, which recorded a 23-percent jump over 1980 levels.

Prices for gasoline, which rose 11 percent in 1981, are expected to be up maybe 4 percent. Farm demand is projected at 2.7 to 3 billion gallons.

Department of Energy analysts say that natural gas supplies will be sufficient to meet demand in 1982. Analysts project 1982 prices to show an increase of 11 to 17 percent, compared with a 31-percent rise last year.

After the big 25-percent price hike for propane last year, farmers can expect 1982 prices to rise 11 to 17 percent. Since propane was decontrolled a year ago, previously tight supplies have improved and are adequate to meet domestic demand, Gavett says.

Electricity prices should increase no more than 3 percent this year, according to Gavett, smaller than the 5-percent rise in 1981. Producers are expected to generate 3 percent more electricity than last year.

Flat growth in use and weak foreign demand will limit price increases for fertilizer.

Fertilizer: Limited Price Increases

Flat growth in use and weak foreign demand will limit price increases for fertilizer, according to ERS economist Paul Andrilenas. He expects price increases to be down from the 7-percent rise in 1981.

The fairly stagnant outlook for fertilizer use arises from reduced agricultural commodity prices, which will not encourage either significant expansion in crop acreage or increased application of fertilizers. Interest rates on farm production loans are expected to remain relatively high during the planting season. As a result, there is little incentive for farmers to greatly expand input use, he says.

Nitrogen: Compared with phosphate and potash prices, the price of nitrogen will probably exhibit the largest rise from spring 1981 to spring 1982. Nitrogen producers are expected to pass higher production costs on to farmers, but stable use and smaller-than-expected fertilizer exports should limit price increases.

With nitrogen use close to last year's level, May 1982 prices could average 4 to 9 percent above a year earlier.

Phosphate: After an 8-percent decline during fall 1981, phosphate prices could return to spring 1981's level as domestic planting starts. However, for prices to rise, export trade will have to resume its vigorous pace, and continued production cutbacks will be necessary to offset high early-season inventories and stagnant domestic demand.

Output of most phosphate materials was down 15 to 25 percent in fall 1981 in response to burgeoning inventories resulting from weak exports.

Potash: This spring's potash prices may be up less than 5 percent from a year earlier. Increased availability of North American potash and a current slowdown in world demand will restrain prices.

In October 1981, combined U.S. and Canadian potash producers' inventories were up 118 percent to unusually high levels. Reduced shipments to offshore markets and continued high production levels added to stocks.

Smaller Pesticide Price Hikes

Price increases for pesticides should be somewhat smaller than last year, says economist Ted Eichers. Prices will be up about 5 percent, compared with 1981's 8 to 10 percent.

Demand in 1982 will about match the level of 1981—three-quarters of a billion pounds—with ample supplies expected. Growth in pesticide demand has slowed considerably since the 1960's and 1970's, when it averaged 10 to 15 percent a year.

During those years the use of herbicides was growing rapidly, but now—with 90 percent of the acreage of major crops such as corn, soybeans, and cotton already being treated—growth has leveled out.

However, the trend to minimum-till farming, which requires more herbicides and insecticides, could mean increased purchases in the 1980's, says Eichers.

At the same time, the growing use of Integrated Pest Management techniques, which often require smaller applications of chemicals, may hold down growth in demand.

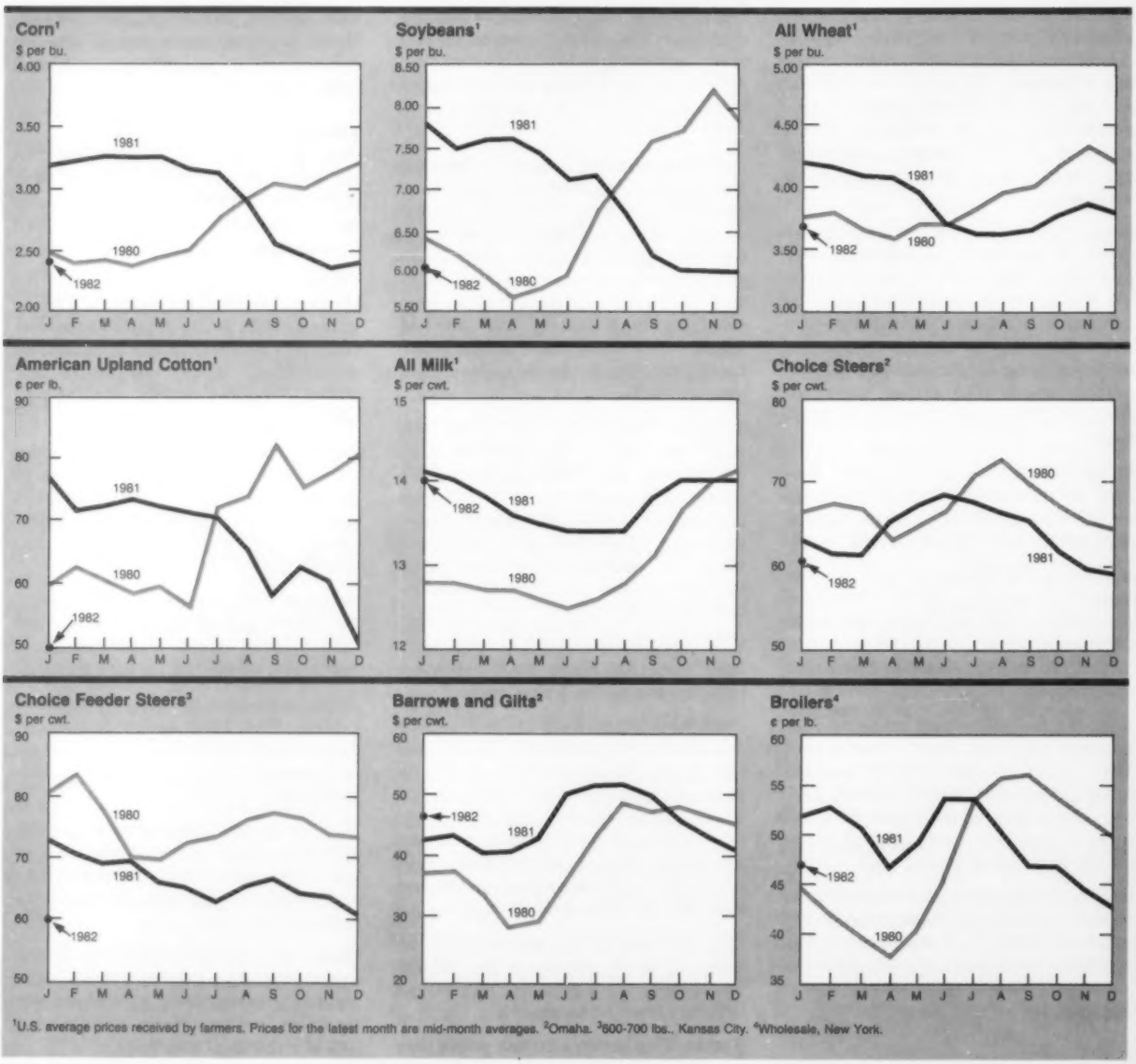
For the longer term forecast to 1985, USDA analysts expect pesticide consumption to grow at the low end of the 1 to 5 percent range projected by industry analysts. □

[*Based on information provided by ERS economists Carl Vosloh, John Duncan, Paul Andrilenas, and Ted Eichers, with additional material from Earle Gavett of USDA's Office of Energy.*]

FARMLINE TRENDS

Monthly Price Monitor

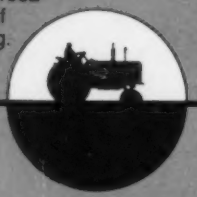
Overall farm prices increased 1.6% in January, the first rise in 13 months. Corn, soybean, and Choice steer prices inched up since December, with sharper gains for hogs and broilers. Cotton and feeder steer prices slipped, and wheat lost 11¢ a bushel. Most prices were well below January 1981 levels. Only barrows and gilts were up from a year ago. Corn was down 79¢, soybeans $1.75, wheat 52¢, cotton 27¢, milk 10¢, Choice steers $2.36, feeder steers $12.86, and broilers 5¢. Feeder steer prices were the lowest they've been since June 1978.



[1]U.S. average prices received by farmers. Prices for the latest month are mid-month averages. [2]Omaha. [3]600-700 lbs., Kansas City. [4]Wholesale, New York.

"Agriculture: It's Your Heartbeat, America"*

U.S. farmers produce the world's most abundant supply of high quality foodstuffs. But the contributions of agriculture go well beyond the farm. Farmers supply a food and fiber system that generates about 20% of our gross national product and employs 23% of the U.S. labor force. "Agriculture Day 1982" on March 18 is set aside to recognize the importance of American farmers and farming to the nation's well-being.



The average U.S. farmworker supplies 78 people, 52 here and 26 abroad.

That's 3 times as many as in 1960 when the average farmworker (farmers plus family and hired workers) produced enough for only 26 people. Productivity is the difference.

In 1920, it took 10% of the population to feed the nation.

Today, less than 2% of the population produces enough to feed the nation plus millions around the world.

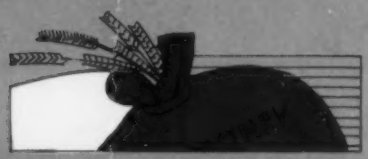
Yet food is still a bargain by most standards.

The typical U.S. wage earner worked twice as long for the same basket of foods 50 years ago. Today, Americans spend only about 16% of disposable income for food, beverages, and tobacco compared with 20%-30% and up in most other developed countries.

Agriculture: America's biggest industry

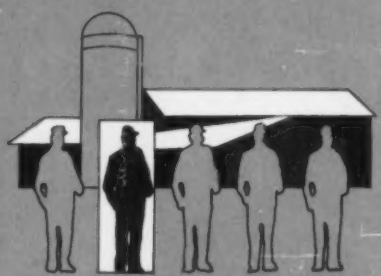
Agriculture generates 20% of our gross national product.

More than $100 billion worth of farm commodities were marketed in 1980. Marketing services added $180 billion to this total. Exports generated $41.3 billion after processing.



One of every five U.S. jobs is tied to agriculture.

Altogether, 24 million Americans are employed to produce, process, transport, and market farm products and farm production inputs. In essence, for every farmer and farmworker, five to six additional jobs are created in the nonfarm sector.



Farm exports turn 1 barrel of oil into 10.

It took about 103 million barrels of oil to produce and ship our farm exports in 1980. But export earnings were enough to pay for 986 million barrels, more than half of our oil imports.

*Official "Agriculture Day" theme of the national Agriculture Day Foundation, a private, nonprofit educational corporation supported, in part, by the Agriculture Council of America.

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